

Appendix G Summary of Mitigation and Monitoring Commitments

But-70/149/99/191 Biological Mitigation Summary

Resource/Species	Mitigation Requirement			Mitigation Location	Schedule
	Impact ha (ac)	Ratio	Total ha (ac)		
Vernal Pool Shrimp Habitat					
1. Preservation				Preserve 37.5 ha (92.7 ac) of vernal pool shrimp habitat at USFWS-approved mitigation bank, or purchase conservation easement at 3:1 ratio 56.2 ha (138.9 ac) on USFWS-approved conservation land	Prior to any ground disturbance, and/or prior to start of construction on or after April 15, 2004.
Direct Impacts	11.87 (29.33)	2:1	23.7 (58.7)		
Indirect Impacts	6.88 (17.0)	2:1	13.76 (34.0)		
2. Creation Direct Impacts	11.87 (29.33)	1:1	11.87 (29.33)	Create vernal pool shrimp habitat at USACOE/USFWS-approved site	
Butte County Meadowfoam					
Indirect Impacts	0.21 (0.53)	5:1	1.1 (2.7)	Contribution to multi-agency purchase of property containing established BCM population	Prior to any ground disturbance, and/or prior to start of construction on or after April 15, 2004.
Wetlands					
1. Freshwater Marsh	2.7 (6.7)	1.5:1	4.05 (10.0)	Create 4.05 ha (10.0 ac) of habitat on-site adjacent to beaver pond area	Contour grading will occur during construction of the SR 70/149 interchange. Revegetation will occur after the Notice of Completion of Construction (NOC) is sent by Caltrans to the Regional Water Quality Control Board via the Caltrans NPDES office. Permanent erosion control measures will be implemented as construction completes each stage of the project.
2. Mixed Riparian	0.97 (2.4)	1.5:1	1.46 (3.56)	Re-vegetate impact areas at creek crossings and created marsh habitat	Revegetation to occur after the NOC is sent to the RWQCB via the Caltrans NPDES office. Permanent erosion control measures will be implemented as construction completes each stage of the project.

3. Roadway Drainage	1.17 (2.9)	1:1	1.17 (2.9)	Replace drainage ditches in-kind on-site	New roadway drainage ditches will be constructed concurrent with construction of the roadway, and will be equal to or larger in volume than removed/filled ditches to achieve “no net loss” of habitat.
4. Jurisdictional Non-Wetland Waters	1.10 (2.72)	1.2:1	1.32 (3.27)	Mitigation will be out-of-kind by increasing functions of adjacent riparian habitat, mainly along Little Dry, Clear and Gold Run Creeks.	This mitigation is intended to compensate for lost aquatic resources below the ordinary high water mark and will occur with mixed riparian mitigation as stated above.
5. Other Wetlands	0.47 (1.16)	1.5:1	0.71 (1.74)	Mitigation out-of-kind will be added to mitigation for Mixed Riparian, Freshwater marsh, and Vernal Pool/Swale impact totals.	Prior to any ground disturbance, and/or prior to start of construction on or after April 15, 2004.
Valley Elderberry Longhorn Beetle (VELB)					
Direct Impacts	22 shrubs; 119 stems	5 stems per credit	24 credits	Payment to USFWS “VELB” fund; replacement planting and transplanting	Prior to any ground disturbance, and/or prior to start of construction on or after April 15, 2004.
Central Valley Chinook salmon					
Essential Fish Habitat	0.89 (2.2)	1:1	0.89 (2.2)	Revegetation at bridge crossings and creek banks to ensure “no net loss” of habitat	Permanent erosion control measures will be implemented as construction completes each stage of the project. Permanent revegetation to occur after the Notice of Completion of Construction is sent to the RWQCB via the Caltrans NPDES office.
Swainson’s hawk					
Potential Foraging Habitat	63.1 (155.8)	1:1	63.1 (155.8)	Covered with preservation of vernal pool shrimp habitat (upland component)	Pre-construction survey will determine presence/absence of nests.
Northwest Pond Turtle					
Marsh habitat	1.87 (4.61)	1:1	1.87 (4.61)	Covered under mitigation for marsh	Permanent erosion control measures will be implemented as construction completes each stage of the project. Contour grading will occur during construction of the SR 70/149 interchange. Permanent revegetation will occur after the Notice of Completion of Construction is sent by Caltrans to the RWQCB via the Caltrans NPDES office.
Oak Woodlands					
Permanent Impacts	0.55 (1.37)	1:1	0.55 (1.37)	Replacement planting on-site	Permanent erosion control measures will be implemented as construction completes each stage of the project. Permanent revegetation to occur after the Notice of Completion of Construction is sent to the RWQCB via the Caltrans NPDES office.